Genus: BAEOMYCES Pers.

207. *Baeomyces byssoides* (L.) Ach. Five specimens.

(This species should have been included with the other species of *Baeomyces* in Part 5, Sept., 1910.)

Genus: PHYSCIA Schreb.

208. *Physcia adglutinata* (Flke.) Nyl. One specimen.

(This species should have been included with the other species of *Physcia* in Part 4, July, 1909.)

MIDDLESEX SCHOOL, CONCORD, MASS.

ANACAMPTODON SPLACHNOIDES VAR. TAYLORIAE IN MISSOURI

EDWARD B. CHAMBERLAIN

In 1906 Dr. Grout[1] published a new variety, *Anacamptodon splachnoides* (Fröl.) Brid., var. *Tayloriae* Grout, based upon material collected by Mrs. A. P. Taylor near Thomasville, Georgia. Through an unfortunate slip of the types, the varietal name was spelled "Tyloriae" in the original publication. This variety was characterized, in contrast to the species, by "a thinner, almost percurrent costa, longer seta, larger capsule, with the operculum barely conic." Judging from the two collections which I have seen, the variety differs also in the larger size, and in the longer, broader leaves.

My attention has been drawn to the variety again, since Rev. C. H. Demetrio has recently forwarded to me a specimen collected in Davis Creek Township, Lafayette County, Missouri, that matches perfectly the Georgia specimens. Dr. Grout has also verified the determination. While this last collection is only the second one to be recorded as far as I know, the very great extension of range which it represents warrants calling especial attention to it, in order that collectors may be more closely on the watch. The species itself is by no means common, but is usually so readily recognized in the field that the variety may pass unnoticed in collections. Dr. Grout, in his original article, calls attention to the similarity of the variety to the plant previously described as *Anacamptodon cubensis* Sull., and it is to be hoped that those who have access to collections from the Southern United States, and particularly from the West Indies, will examine them with reference to the variety in question, that the matter of its distribution may be settled, and the possible identity of it with the Cuban species cleared up.

MISCELLANEOUS NOTES

Mr. Chamberlain contributes the following note from Mr. H. N. Dixon, regarding Dr. Brotherus, Helsingfors, Finland: "I hear today from Thériot that he has just heard from Brotherus, from whom we have heard nothing for

[1] BRYOLOGIST **9**: 44. (1906).

years. He says that he is in good health, but has suffered much from the revolutionary movement, both physically and morally, and that they feel themselves isolated from the world. He hopes he may, however, soon begin his scientific work again, if peace is made."

NOTES ON RECENT BRYOLOGICAL LITERATURE

Bryophytes with reference to Plant Genetics.—A small but valuable text[1] on Plant Genetics by the Coulters, at the University of Chicago, has recently appeared, and pages 187 to 189 take up a brief treatment of the work which has been done in the mosses and liverworts bearing on questions of heredity.

In dioecious liverworts, such as *Marchantia*, the antheridia and archegonia appear in about equal numbers, and it was supposed, then, that the four spores (tetrads) produced by the spore mother-cell of the sporangium would be equally divided as to sex, two of them producing antheridial plants and the other two archegonial plants. Noll[2] found that gemmae from antheridial gametophytes produced only antheridial gametophytes, and those from archegonial gametophytes only archegonial ones. Strasburger[3] then worked on *Sphaerocarpus*, in which the four spores of the tetred hang together, and found that the four gametophytes produced from the four spores of the tetrad were always two antheridial and two archegonial, so that the sexes must be differentiated in the formation of the four spores of the tetrad during the so-called "reduction-division" of the nucleus of the spore mother cell of the sporangium.[4]

During these reduction divisions certain organs of the nuclei known as "chromosomes" split and separate to enter into the formation of the newly-formed nuclei, and Allen[5] not long ago claimed that the nuclei of the archegonial gametophyte of *Sphaerocarpus* have one larger chromosome, and the nuclei of the male gametophyte one very small one. A monoecious liverwort, however, must have both antheridial and archegonial characters in each spore, and what happens in some species of *Riccia* where antheridia and archegonia are produced by the same gametophyte but at different times?

The authors refer to the Marchal's work on *Funaria*[6], a species which, like *Marchantia*, is dioecious. Clipping fragments from young sporophytes the Marchals were able to grow these directly into gametophytes, thus leaving out of the life-cycle the reduction division. According to theory the resulting gametophytes should, of course, all be dioecious, producing both antheridia and archegonia, and this was exactly the result obtained.

O. E. J

[1] Coulter, John M., and Coulter, Merle C. Plant Genetics. University of Chicago Press. 1918.

[2] Noll. Sitzungsb. Nied. Gesell. Bonn. Naturw. Abt. 1907. S. 68.

[3] Strasburger. Biol. Centralblatt **20**: 657, 1900. and Jahrb. Wiss. Bot. **48**: 427–500. 1910.

[4] See BRYOLOGIST **20**: 64–66. 1917.

[5] Allen. Science **46**: 466–467. 1917.

[6] Marchal, El & Em. Bull. Acad. Roy. Begique, Cl. Sci. **1907**: 765–789; **1909**: 1249–1288; and **1911**: 750–778.